

REMARKS / ARGUMENTS

Amendments to the Claims were to more clearly define what Applicants consider the invention. Support for the amended claims may be found in the originally submitted application. No new matter has been added.

Applicants respectfully request reconsideration of this application.

All Applicants' Claims and cited art Ali et al ("Ali", WO 01/44932) in view of Rollins et al ("Rollins", US 2002/0129060) and for claims 4, and 52 additionally Official Notice.

All of Applicants' claims before amendment stood rejected under Ali in view of Rollins for 103(a), and claims 4 and 52 additionally Official Notice.

Applicants submit that as amended all claims are distinguishable over Ali in view of Rollins and Official Notice for claims 4 and 52.

Claims 1-3, and 5-58 Rejection under 35 U.S.C. § 103(a)

Applicants' claim 1 as amended recites:

1. A method comprising:

receiving any XML (extensible markup language) instance;

receiving schema for said XML instance;

receiving a display specification having pattern matching rules for XML schema elements;

generating a user interface based on said XML schema elements and said display specification; and

populating said user interface with contents of said XML instance.

Ali in view of Rollins is cited as making obvious Applicants' claim 1 as noted at Office paragraph 4:

As per independent claim 1, Ali discloses a method comprising: receiving a schema having elements (Ali, Figure 4A item 410); receiving an instance related to said schema (Ali, Figure 4A item 414); receiving a display specification (Ali, Figure 4A item 412); and generating a display (Ali, Figure 4A item 424). Ali does not distinctly point out a display specification having rules for schema elements, and generating a display based on the schema elements and the display specification rules. However, **Rollins teaches receiving a display specification having rules for schema elements ([0032] lines 2-5), and generating a display based on the schema elements and the display specification rules ([0032] lines 5-9).** Therefore it would have been obvious to an artisan at the time of the invention to combine the specification rules of Rollins with the method of Ali. Motivation to do so would have been to allow users to customize an interface based upon their preferences.

(Emphasis added.)

As amended, Applicants' claim 1 recites among other things: "receiving **any** XML (extensible markup language) instance". (Emphasis added.)

Ali does not disclose this limitation. To the contrary, Ali works only with very specific XML data that describes the UI (user interface), and is not actual user-data. Additionally, the Ali patent cannot work with "ANY" schema. Ali works with specific schema which is geared towards specifying displays (see as an example on page 23 under Control Panel XML Schema Document). Nor does the addition of Rollins disclose this limitation. Ali in view of Rollins does not disclose this limitation as claimed in Applicants' claim 1.

Applicants respectfully request removal of the rejection for claim 1, and allowance for claim 1 and claims 2-3, and 5-19 which are dependent on claim 1.

With respect to Rollins (see Rollins Fig 1 prior art, 2 prior art, 3, 4, 5, 6, 7) the XML Schema specifies WHICH UI component to generate. For example, see Rollins Fig. 3 where 304 Component Generator generates Component 1, 2, and n respectively at 306, 308, and 310. Examples of such Components are illustrated in Rollins Fig. 5 for such things as HTML Components 502, Speech Component 504, etc. Applicants on the other hand use the XML Schema to define USER data. Which UI components to generate (Rollins) is not the same as defining USER data (Applicants).

Further with respect to Rollins, and viewing Rollins Fig. 11 it will be noted that Items 1100, 1102, 1104, 1106, 1108, 1110, 1112, 1114 specify generating respectively: labels for "PersonList", and "Names"; a List; a panel with label "Name", and "First"; and a text area next to "First" label, and "Last" label. These are generated UI-widgets one-by-one for rendering the XML data. As a consequence, if the XML Structure CHANGES, there is no way for the User Interface to handle the change. Applicants on the other hand use the data itself for the rendering. So, for example, using the Rollins example, if in the data, if the NODENAME said the word "First" Applicants invention would automatically show a "TEXT BOX as OPPOSED to a LABEL" for the first name.

Additionally, a comparison of Applicants' Figure 3 and Rollins Figure 4 clearly shows the distinction between the Rollins' approach of code-generation 404 of components 406

and 408 based on rule specification files 400 and schema 402 which is then input to a rendering system 412 as is an XML document 410. This contrasts with Applicants' approach wherein the schema 302, instance 304, and display spec 308 are in communication with the application 306 which generates a display 310.

For the above reasons, Applicants submit that Ali in view of Rollins does not make what Applicants have claimed in claim 1 obvious. Applicants respectfully request removal of the rejection for claim 1, and allowance for claim 1 and claims 2-3, and 5-19 which are dependent on claim 1.

Claim 4 Rejection under 35 U.S.C. § 103(a)

With respect to claim 4 (which is dependent on independent claim 1) which stood rejected under 103(a) as obvious in light of Ali in view of Rollins and Official Notice, Applicants submit that per Applicants' amended claim 1 and per the arguments above, Ali in view of Rollins no longer anticipates Applicants' claim 1 and therefore the Official Notice standing alone does not make obvious Applicants' claim 4. Applicants therefore request removal of the rejection for claim 4, and allowance of claim 4.

Claims 20-37 Rejection under 35 U.S.C. § 103(a)

Applicants' claim 20 as amended recites:

20. A method comprising:

receiving a display specification having rules for displaying schema elements;

receiving an XML schema;

dynamically generating a user interface based upon said XML schema and said display specification; and

populating said user interface based upon any received instance.

As amended, Applicants' claim 20 recites among other things: "populating said user interface based upon **any** received instance." (Emphasis added.) As noted above, Ali and Rollins both fail to disclose this limitation and Ali in view of Rollins does not disclose this limitation as claimed in Applicants' claim 20. Applicants therefore request removal of the rejection for claim 20, and allowance for claim 20 and claims 21-37 which are dependent on claim 20.

Claims 38-48 Rejection under 35 U.S.C. § 103(a)

Applicants' claim 38 as amended recites:

38. An apparatus for dynamically generating a user interface comprising:

means for receiving a schema having elements;

means for receiving any instance related to said schema;

means for receiving a display specification having rules for schema elements;
means for generating a display based on said schema elements and said
display specification rules; and
means for populating said display with contents of said instance.

As amended, Applicants' claim 38 recites among other things "means for receiving **any instance** related to said schema ... and means for populating said display with contents of said instance." (Emphasis added.) As noted above, Ali and Rollins both fail to disclose this limitation and Ali in view of Rollins does not disclose this limitation as claimed in Applicants' claim 38. Applicants therefore request removal of the rejection for claim 38, and allowance for claim 38 and claims 39-48 which are dependent on claim 38.

Claims 49-51 and 53-57 Rejection under 35 U.S.C. § 103(a)

Applicants' claim 49 as amended recites:

49. A system comprising a processor, which when executing a set of instructions, performs the following:

retrieves a schema having elements;
retrieves any data related to said schema;
retrieves a display specification having rules for schema elements;
generates a user interface based on said schema elements, said display
specification rules, and said data; and

populates said user interface with contents of said data.

As amended, Applicants' claim 49 recites among other things "retrieves **any** data related to said schema ... and populates said user interface with contents of said data." (Emphasis added.) As noted above, Ali and Rollins both fail to disclose this limitation and Ali in view of Rollins does not disclose this limitation as claimed in Applicants' claim 49. Applicants therefore request removal of the rejection for claim 49, and allowance for claim 49 and claims 39-48 which are dependent on claim 38.

Claim 52 Rejection under 35 U.S.C. § 103(a)

With respect to claim 52 (which is dependent on independent claim 49) which stood rejected under 103(a) as obvious in light of Ali in view of Rollins and Official Notice, Applicants submit that per Applicants' amended claim 49 and per the arguments above, Ali in view of Rollins no longer anticipates Applicants' claim 49 and therefore the Official Notice standing alone does not make obvious Applicants' claim 52. Applicants therefore request removal of the rejection for claim 52, and allowance of claim 52.

Claim 58 Rejection under 35 U.S.C. § 103(a)

Applicants' claim 58 as amended recites:

58. (currently amended) An apparatus for dynamically generating a user interface comprising:

means for receiving an XML schema having elements;

means for receiving any XML instance related to said XML schema;

means for receiving an XML compliant display specification having actions and presenters and rules for schema elements;

means for generating a display based upon the display specification and said XML schema elements;

means for populating said display with contents of said XML instance;

means for receiving a user input from the user interface; and

means for communicating to a program or processor through actions and presenters based upon the user input.

As amended, Applicants' claim 58 recites among other things "means for receiving **any** XML instance related to said XML schema ... means for populating said display with contents of said XML instance". (Emphasis added.) As noted above, Ali and Rollins both fail to disclose this limitation and Ali in view of Rollins does not disclose this limitation as claimed in Applicants' claim 58. Applicants therefore request removal of the rejection for claim 58, and allowance for claim 58.

CONCLUSION

Applicants submit that any claim not directly discussed is addressed via the independent claim discussion on which it is dependent.

Applicants respectfully submit that all claims are in condition for allowance, and request allowance of all claims.

The Examiner is invited to call Alan Heimlich at 408 253-3860 if there remains any issue with allowance. Cleartext email communication is authorized.

Respectfully submitted,

Heimlich Law

06/14/2006

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